

The opinion in support of the decision being entered today  
was not written for publication in a law journal and  
is not binding precedent of the Board.

Paper No. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte TAKEHISA YAMAGUCHI,  
SATOSHI YOKOTA and YASUSHI IIJIMA

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Appeal No. 2000-1954  
Application No. 08/593,459

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ON BRIEF

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Before URYNOWICZ, BARRETT, and BARRY, Administrative Patent  
Judges.

URYNOWICZ, Administrative Patent Judge.

DECISION ON APPEAL

This appeal is from the final rejection of claims 1-4, 6,  
8-10, 12-14, 23, 24 and 26.

Appeal No. 2000-1954  
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The invention pertains to a circuit for a camera. Claim 1 is illustrative and reads as follows:

1. A charging circuit, comprising:

a transformer which transforms a supplied voltage and supplies said transformed voltage to a load to be charged;

a switching device which is connected with said transformer; and

a controller which detects a voltage which is applied from a power source to said transformer, and determines whether or not said voltage is equal to or larger than a prescribed value, and controls said switching device to switch on and off in different manners in accordance with said determination so that the charging of the load is performed in different manners.

The reference relied upon by the examiner is:

Hauenstein                      4,150,306                      Apr. 17, 1979

Claims 1-4, 6, 8-10, 12-14, 23, 24 and 26 stand rejected under 35 U.S.C. § 102(b) as anticipated by Hauenstein.

The respective positions of the examiner and the appellants with regard to the propriety of this rejection are set forth in the examiner's answer (Paper No. 25) and the appellants' brief and reply brief (Paper Nos. 24 and 27, respectively).

### Appellant's Invention

The invention is described at pages 1-3 of the brief.

### The Prior Art

Hauenstein discloses a blocking converter for use in battery-operated electronic flash equipment for photography. Figure 1 shows a switching transistor T controlled by a monoflop 11 (Figure 7) in a control circuit S with a defined on-time RC circuit which insures that the same electric energy quantity is always stored in a transformer  $T_r$  driven by the switching transistor when conducting. The electrical energy in the transformer is reversed when the switching transistor becomes non-conducting ( $t_{off}$ , Figures 2-5) to charge the capacitor  $C_L$  during a blocking phase of the switching transistor. The capacitor  $C_L$  is in turn discharged to produce the camera flash. The operation of re-charging the capacitor is then repeated.

### Grouping of Claims

At page 3 of the brief, appellants have stated that all claims do not stand or fall together. The position is taken that even if independent claims 1 and/or 23 are not considered to distinguish from the prior art, separate grounds of patentability exist for independent claims 12 and 24.

Opinion

Appellants argue at page 5 of the brief that Hauenstein does not teach the detection of the voltage supplied to the transformer, i.e., the power supply voltage. The argument is made that the detector resistor  $R_F$  in Figure 1 of Hauenstein does not detect the power supply voltage  $U_S$  but rather detects the energy  $U_{pr}$  stored in transformer  $T_r$ .

This argument is not commensurate in scope with the claims and is not persuasive. The claims do not require detecting the power supply voltage, such as  $U_S$  in Hauenstein, which is applied from a power source to the transformer. For example, claim 1 recites that a controller ". . . detects a voltage which is applied from a power source to said transformer" (emphasis added). At column 4, lines 11-16, the reference teaches that the trigger circuit 12 receives its information from a comparator 13 producing an output signal as soon as the measuring signal (voltage or current which corresponds with the energy stored in the transformer) at the terminal 1 falls below a defined switching threshold. The voltage referred to is ". . . a voltage which is applied from the power source . . .", not illustrated, which source supplies voltage  $U_S$  at the left-most terminals of Figure 1.

Appellants also argue to the effect that in Hauenstein there is no determination whether the voltage level at terminal 1 is equal to or larger than a threshold, only when the voltage falls below a certain level. We are of the opinion that in determining that the voltage level is below a threshold, Hauenstein determines whether the voltage level is equal to or larger than the threshold. The claim language is simply too broad to distinguish over Hauenstein.

An argument is made to the effect that controller S of Hauenstein does not control switching device T to switch on and off in different manners so that the charging of the load is performed in different manners. We disagree. The charging of the load  $C_L$  in the reference is performed in different manners in the sense that charging time is variable, depending on the charge on  $C_L$  when charging is initiated (column 3, lines 50-54). The charging of the load  $C_L$  occurs based on a determination by controller S that the voltage at terminal 1 has fallen below a threshold. This would occur as when an operator depresses the button on a flash camera, resulting in discharge of  $C_L$  to create the camera flash and the consequent, automatic beginning of a new  $t_{on}$ - $t_{off}$  period to recharge  $C_L$ . Whereas a camera

operator takes pictures at random times, the  $t_{\text{off}}$  time is random and variable such that switching transistor device T is caused ". . . to switch on and off in different manners in accordance with said determination . . ." as in claim 1<sup>1</sup>.

In view of findings, above, we will sustain the rejection of claims 1-4, 6, 8-10 and 23.

Appellants make further arguments which apply to claims 12-14, 24 and 26. It is submitted that Hauenstein does not disclose the control of charging speed in accordance with the voltage detected by two detectors. The contention is also made that the reference does not teach the variation of charging rate according to the detected power supply voltage.

Appellants' first argument is unpersuasive. Claims 12-14 and 24 recite that a controller controls charge speed, and the detection provided by Hauenstein's controller S controls charge speed of capacitor  $C_L$ . Clearly, the controller, in cooperation with the values of the other circuit elements, sets and controls

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<sup>1</sup> We also agree with the examiner's statement at page 4 of the answer to the effect that device T switches on and off in different manners because a signal of one value is supplied to the base of T to switch it on and a signal of a second, different value is supplied to the base of T to switch it off.

a charging speed. In Figure 7 of Hauenstein comparator 14 of controller S is a first detector which detects charge voltage at terminal 2 (see Figure 1), and comparator 13 in Figure 7 is a second detector which detects voltage supplied from transformer  $T_r$  at terminal 1. Accordingly, we will not sustain the rejection of claims 12-14 and 24.

After consideration of the arguments presented by the examiner and the appellants, we have concluded that the rejection of claim 26 should not be sustained. Hauenstein does not disclose relatively slow and relatively fast charging speeds of capacitor  $C_L$ .

#### Summary

The rejection of claims 1-4, 6, 8-10, 12-14, 23 and 24 under 35 U.S.C. § 102(b) as anticipated by Hauenstein is sustained.

The rejection of claim 26 under 35 U.S.C. § 102(b) as anticipated by Hauenstein is reversed.

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No time period for taking any subsequent action in  
connection with this appeal may be extended under 37 CFR  
§ 1.136(a).

AFFIRMED-IN-PART

STANLEY M. URYNOWICZ	)	
Administrative Patent Judge	)	
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	)	BOARD OF PATENT
LEE E. BARRETT	)	APPEALS AND
Administrative Patent Judge	)	INTERFERENCES
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LANCE LEONARD BARRY	)	
Administrative Patent Judge	)	

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